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ABSTRACT

This study examined the evolution of the accuracy/thoroughness of novice through expert teachers' recall of their own and their students' specific classroom behaviors, investigating the relationship of their recall to the frequency and levels of their reflection and using findings to determine the impact of their recall on their effectiveness in mentoring novices. Participants included three groups of elementary teachers: (1) four novices (student teachers just beginning actual teaching); (2) five transition group teachers (teachers with 1-6.5 years experience); and (3) three experts (teachers with 10-30 years experience). Teachers were observed teaching for one class period. In an interview following the observation, teachers recalled their own and their students' specific classroom behaviors. Each recall was compared to observations to determine the accuracy and thoroughness of the recall. Infrequent inaccuracies in recall were noted in novices through teachers with 1-3.5 years experience. The teacher with 6.5 years experience and the experts exhibited accurate recall. A continuum was observed from general recall that lacked thoroughness (novices) through very specific and thorough recall (transition group) to general and less thorough recall (experts). Teachers' elaborations suggested reflection at three levels of reflectivity, with teachers emphasizing different levels and exhibiting different consistencies of reflection. (Contains 32 references.) (SM)

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IMPACT OF TEACHERS' RECALL ON THEIR EFFECTIVENESS IN MENTORING NOVICE TEACHERS: THE UNEXPECTED PROWESS OF THE TRANSITIONAL STAGE IN THE CONTINUUM FROM NOVICE TO EXPERT

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Objective

Accuracy/thoroughness of recall is important because it is a necessary precursor to teachers achieving the capability of effective reflection. This qualitative study examined the evolution of the accuracy/thoroughness of novice through expert teachers' recall of their own and their students' specific classroom behaviors, the relationship of their recall to the frequency and levels of their reflection (Van Manen, 1977), and applied the findings to determining the impact of these teachers' recall on their effectiveness in mentoring novice teachers.

Theoretical Framework

A primary goal of teacher education programs is the development of effective teachers. Reflective teaching is viewed as a paramount vehicle for enhancing the development of effective teachers; therefore, it is the aim or salient theme of a vast and increasing number of teacher education programs (Calderhead, 1989; Loughran, 1995, April; Richardson, 1990; Ross, 1989; Smyth, 1989; Wildman, Niles, Magliaro, & McLaughlin, 1990). Reflective teaching is defined by Zeichner and Liston (1987) as a process of assessing the origins, purposes, and consequences of one's work at all three levels of reflectivity as described by Van Manen (1977). There is a general consensus that reflectivity leads to professional growth (Ferguson, 1989; Frieberg & Waxman, 1990; Van Manen, 1991; Wildman & Niles, 1987; Wildman et al., 1990). For many teachers, self-directed assessment of one's own teaching is the primary method for effecting improved teaching performance and, therefore, growing in expertise (Irvine, 1983; Loughran, 1995).

The reflective process is initiated by questions whose essence is the recall of specifics (Eisner, 1991; Loughran, 1995, April; Noordhoff & Kleinfeld, 1990; Roth, 1989; Smyth, 1989). This implies that accurate/thorough recall is necessary in order to proceed to subsequent questions in the reflective process.

Typically, experienced teachers have grown in cognition in their years of teaching and possess rich schemata (Allen & Casbergue, 1995, 1997; Brown, Bransford, Ferrara, & Campione, 1983; Carter, Sabers, Cushing, Pinnegar, & Berliner, 1987; Carter, Sabers, Stein, & Berliner, 1988; Chi, Feltovich, & Glasser, 1981; Chase & Simon, 1973; Clarridge & Berliner, 1991; de Groot, 1965; Larkin, McDermott, Simon & Simon, 1980; Livingston & Borko, 1989; Peterson & Comeaux, 1987) which allow them to demonstrate significantly better recall ability of meaningful classroom occurrences than novices (Allen & Casbergue, 1997; Carter et al., 1987; Clarridge & Berliner, 1991; Peterson & Comeaux, 1987; Sabers, Cushing, & Berliner, 1991). Typically, novices recall neutral behaviors and do not recall positive behaviors (Allen & Casbergue, 1995, 1997) or blatant unacceptable behaviors (Allen & Casbergue, 1995, 1997; Clarridge & Berliner, 1991). Therefore, novices cannot effectively answer the first question that initiates the process of reflection, e.g. "What happened?" (Eisner, 1991; Loughran, 1995, April) or "What did I do?" (Smyth, 1989). This fact supports the conclusion that novice teachers have limited ability to reflect and analyze (Berliner, 1988, 1989, 1994; Livingston & Borko, 1989; Wildman & Niles, 1987). If novices cannot accurately/thoroughly recall and expert teachers can, then when and how do novices develop this ability to move through the levels of accurate/thorough recall of specific behaviors on their journey toward expertise?

While this body of research explores recall differences between novice and expert teachers, only in one study (Allen & Casbergue, 1997) have researchers included a transition group of teachers and described the cognitive development and continua related to the recall of classroom behaviors as one moves from novice to more experienced to expert teacher. This study is the first to focus on transition groups rather than dichotomous expert/novice classification.

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Methods/Data Source

The sample for the current study consisted of three groups of elementary school teachers: four novices, student teachers in their first or second week of actual teaching; five transition group teachers, teachers with 1 to 6.5 years experience; and three experts, teachers with 10 to 30 years experience. Qualitative methods were utilized in this research as described below.

The teachers were observed teaching in a natural setting for one class period by the primary researcher. The class was audiotaped, and detailed notes of the teachers' and students' specific classroom behaviors were recorded. A one hour structured interview followed the observation during which teachers recalled their own and their students' specific classroom behaviors. The interviews were audiotaped. The teachers' recall was subsequently compared to the recorded observations to determine the accuracy (correctness) and thoroughness (completeness) of their recall. Comparisons were made within groups and across groups. In addition teachers' responses to the interviews were analyzed for common themes. While there was not any direct attempt to elicit reflection, in the course of analyzing data, it became clear that the teachers all elaborated beyond straight recall of their own and their students' behaviors during the observed class. It is suggested here that these elaborations offer glimpses into the teachers' reflection about their teaching. Their elaborations were analyzed to determine if the teachers reflected and, if so, how often and at which of the three levels of reflectivity described by Van Manen (1977). Subsequently, the accuracy/thoroughness of the teachers' recall was compared to the frequency and levels of their spontaneous reflection in the course of the recall task. The findings were applied to determine the impact of these teachers' recall on their effectiveness in mentoring novice teachers.

Results

Infrequent inaccuracies in recall were noted with novices through teachers with 1 to 3.5 years experience. The teacher with 6.5 years experience and the experts exhibited accurate recall. During the analysis of teachers' thoroughness of recall, the following themes emerged. (1) As teachers gained experience, their reported focus during teaching shifted from their own behaviors (novices) to their students' behaviors (transition group) to a combination of their own and their students behaviors(experts). (2) Teachers' reported focus did not consistently concur with the focus apparent in their oral recall until teachers had a minimum of 6.5 years experience. (3) Novices recalled neutral behaviors, and the more experienced teachers recalled neutral, negative and positive behaviors. (4) The findings also demonstrated that teachers progressed in thoroughness of recall along different paths and at different rates.

A continuum was observed from general recall that lacked thoroughness (novices) through very specific and thorough recall (transition group) to general and apparently less thorough recall (experts). It was concluded that the latter general recall indicated pattern formation, i.e. subsuming of specific behaviors, in the schemata of the four most experienced teachers. Another continuum was observed from hesitant, uncertain, inconsistent, strained recall to fluid, certain, consistent, and generally effortless recall.

With the exception of an outlier in the novice group, each of the teachers' elaborations suggested reflection at the three levels of reflectivity described by Van Manen (1977), but they placed emphasis on different levels and exhibited different consistencies of reflection. Based on their elaborations all teachers appeared to reflect about equally at level I which is primarily concerned with efficient and effective application of pedagogical knowledge. Novices and the teacher with one year of experience who was not trained in reflection reflected essentially equally at all three levels. With increasing experience, the teachers placed more emphasis on level II, the assessment of educational consequences of a teaching action and/or the clarifying of assumptions and predispositions underlying competing educational goals, and level III which is concerned with whether human needs and purposes are being met. After completing one year of teaching,teachers who appeared to be reflective often incorporated level I into levels II and III, i.e. their own effectiveness was assessed according to the responses of their students and whether or not students' needs were met.

When compared to the novices, three of the transition group teachers reflected twice as frequently at levels II and III as the novices. The expert teachers reflected four times more

frequently than the novices at level II and three times more at level III. The experts reflected twice as often at levels II and III than the transition group.

When the frequency of reflection, as evidenced during elaborations, and the corresponding levels of reflectivity were compared to the thoroughness of recall of an individual or members composing a group or one group to another, the results indicated that reflection on one's teaching experiences, i.e. one's own behaviors and the behaviors of one's students, is necessary for the development of thoroughness of recall, i.e. professional growth. The findings indicate that when years of experience are equal, the more reflective teacher(s) will exhibit the more thorough recall. When the consistency and frequency of reflection are relatively equal, the more experienced teacher(s) will demonstrate the more thorough recall. Of the experienced teachers, the transition group of teachers overtly recalled in a very specific/thorough manner while the experts typically overtly recalled generally and seemingly less thoroughly.

Educational Significance

Because reflection was not explicitly requested as teachers were asked to recall their own and their students behaviors, results related to reflection must be carefully considered. To the extent that teachers' elaborations beyond simple recall might suggest the manner in which they reflect about their teaching, the following conclusions can be drawn.

Resulting knowledge of the impact of the relationship between accuracy/thoroughness of teachers' specific recall of their own and their students' behaviors and the frequency and levels of teachers' reflections has strong implications for the design and evaluation of programs for beginning teachers. Teacher education programs that stress reflectivity need access to research results that demonstrate the shifts and changes that occur in recall ability of novices as they move toward expertise and that pinpoint when teachers can be expected to develop the accurate/thorough recall which allows them to effectively reflect. Prior to this time, teachers may be reflecting on inaccurate/incomplete recall; and, therefore, their conclusions would not produce enlightenment of true problem areas or awareness of strengths. Data from this study indicate teacher education programs that stress reflectivity should incorporate curriculum and instruction which most effectively promote and enhance novices' accurate/thorough recall ability and/or necessitate teacher educators' reconsideration of their goals so as not to expect too much from novices too soon.

The data indicate that practicing reflection is necessary for novices to build sufficient pedagogical schemata which provides the capability to effectively self-reflect and, thereby, progress on the journey to expertise. For the novice teachers, the data also indicate that guided reflection is a necessity if they are to effectively reflect on classroom behaviors. The results of this study may supply the impetus and act as a guide for teacher educators to devise and utilize a different set of criteria for selection of cooperating teachers. Typically teacher education programs select elementary school teachers with many years of experience, the experts, to be cooperating teachers; and, if applicable, to guide the novice teachers in reflection. Teachers in the transition group typically recall classroom behaviors in a very specific and thorough manner while experts usually recall generally and seemingly less thoroughly. Since the essence of the first question that initiates the process of reflection deals with specific accurate/thorough recall (Eisner, 1991; Loughran, 1995, April; and Smyth, 1989), this study indicates the teachers in the transition group with over 3.5 years of experience may be a better choice than experts to mentor novice teachers and guide their reflection on practice.

The results of this study may encourage the establishing of workshops for cooperating teachers which provide training and techniques for guiding reflection and increase their awareness of teachers' cognitive development, the needs of preservice teachers, and what can be realistically expected of a novice teacher so they, as well as the teacher educators, do not expect too much too soon.

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